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| **Explanation of Math Instructional Sequence**  *The following two pages will explain the set up of the Instructional Sequence.* | | |
| Unit #: **Title of Unit** Time Frame: Dates for instructing (days allotted) | | |
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| **Essential Understandings: C:\Users\lsharlow\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\N41QMS9C\MC900233518[1].wmf**   * This section notes the “big math ideas” this unit focuses on. | | |
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| **CCSS focus this unit:**   * The coding and wording for the specific standards directly linked to the Essential Understandings of this unit will be listed here.   Also addressed:   * The coding and wording for other standards connected to the content of this unit, though not a direct connection to the Essential Understanding will be listed here. |  | **Math Practices**  This section reminds us of the instructional expectations of our lessons by listing the 8 Standards for Mathematical Practice noted in our Common Core State Standards. |
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|  | Planning/Reflective Questions for Teachers   * The CCSS expects our instruction to change. * The questions listed here are to assist our thinking in regards to planning and instructional practice. |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **AH—**Assessment Handbook (Everyday Mathematics)  **EM — DO** Everyday Math Part 3: Differentiation Options  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies  \*(referenced in Support Resources & offered at the print shop) |  | **Critical Vocabulary:**  Specific terms that should be used with precision while communicating about the topic of this unit will be listed here.  REMEMBER: WPS portal houses the concept cards for student interaction and display, strategies and definitions packet, and interactive SMART Board activities designed to support vocabulary understanding. |
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| Lessons not aligned to CCSS: lessons that are not included or listed as “optional” will be listed here. Optional lessons are included in the list of lessons and are considered lessons that enhance students’ learning, though not directly addressing grade level standards. | | |

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| **second page** | | |
| **CCSS** | **Lesson** | **Questions to encourage MP** |
| For the objective of each lesson, the following will be noted:  Content Standard(s)  Standards for Mathematical Practice  ▲Assessed indicators (3rd-5th) | * **Unit Lesson #– Lesson Title** p. pages in Teacher’s Guide   A star (★) will be in front of lessons that have changes that support the new CCSS. Teachers will need to access the new resources from either the WPS portal, or everydaymathonline.com.  All other lessons will have a circled bullet (⬝)  *Teacher Note: instructional adjustments that are necessary to target skills and concepts.* | * Questions listed for each lesson that focus on one or more Mathematical Practice Standards * These questions could be beneficial for formative assessment or reflective closing opportunities. |
|  | * Additional Lessons/Half-Lessons will be inserted within units to address content that requires instructional support. |  |
|  | * **Progress Check - Unit lesson #**   p. in Teacher’s Lesson Guide  *(When lessons have been deleted from a unit, items from the Written Assessment Part A that should be skipped will be noted here )* |  |

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| Support Resources **second or third page** |
| Coded standard (i.e. 5.OA.2)  Resources that support the focus standards of this unit will be listed here. Each standard will have its own list of support activities. These can be used to enhance core instruction or intervention needs.  Resources could include: Everyday Math Games (GK), “Teaching Student Centered Mathematics” (VDW); or the AIMS-Solve it book (AIMS PS)  *Remember, Everyday Mathematics part 3: Differentiation Options offer instructional support for intervention. These are not listed within these boxes, but are valuable activities to consider.* |

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Unit 1: **Numbers and Routines** Time Frame: Aug 15-Sep 8 (18 days)

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| Essential Understandings:   * Understand place value. * Add and subtract within 20. | | |
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| **CCSS focus this unit:**   * 2.OA.2-- Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.NBT.2 - Count within 1000; skip-count by 5s, 10s, and 100s. * 2.NBT.3 - Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. * 2.NBT.4-- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.   Also addressed:   * 2.OA.3-- Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. * 2.NBT.1 - Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:   a. 100 can be thought of as a bundle of ten tens — called a “hundred.”  b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).   * 2.NBT.8 - Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900. * 2.NBT.9 - Explain why addition and subtraction strategies work, using place value and the properties of operations. * 2.MD.6 - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. * 2.MD.7 - Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * What strategies for computation emphasize place value knowledge and skill? * When comparing numbers, how can I make sure students use the understanding of place value? |
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Lessons not aligned to CCSS: 1-5

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.NBT.1a, 2.NBT.2, 2.NBT.3, 2.MD.6  MP1,2,4,6,7 | * **Lesson 1-1 Math Message and Number Sequences** p. 18-22 | * Why might you use a number line? |
| 2.NBT.2  2.MD.8 | * **Additional lesson - Coin Puzzles (2 days)** | * How do the coin puzzles identify the coin values? |
| 2.NBT.2  MP2,3,4,6,7 | * **Lesson 1-2 Tools and Coins** p. 23-27   *Teacher Note: coin puzzles should be available for students use* | * Why is it important to be able to explain what numbers and symbols mean? |
| 2.MD.7  MP2,3,4,5,6,7 | * **Lesson 1-3 Calendars and Clocks** p.28-32   *Teacher Note: emphasize clock instruction* | * Describe how you show the time on your student clock. |
| 2.OA.2  MP2,5,6,7 | * **Lesson 1-4 Partner Study Routines** p. 33-37 | * How do the patterns on the number grid help you count up and count back? |
| Optional | * **Lesson 1-5 Grouping by Tens - $1, 410, $100** p. 38-41 |  |
| 2.OA.2,  MP2,4,6,7, | * **Lesson 1-6 Math Boxes** p. 42-45 | * Why is it important to count, add, and subtract correctly? |
| 2.NBT.2, 2.NBT.3  MP2,5,6,7, | * **Lesson 1-7 Working in Small Groups** p. 46-50 | * Why is it important to make sense of others’ mathematical thinking? |
| 2.NBT.2, 2.NBT.8  MP1,5,6,7, | * **Lesson 1-8 Number Grids** p. 51-54 | * What are some of the patterns that you see on the number grid? |
| 2.NBT.2  MP1,2,4,5,6,7 | * **Lesson 1-9 Equivalent Names for Numbers** p. 55-60 | * Why is it important to write names for numbers in more than one way? |
| 2.OA.3, 2.NBT.2  MP1,5,6,7, | * **Lesson 1-10 Counting Patterns** p. 61-64 | * Why is it important to explain your strategies and be able to say why they work? |
| 2.0A.2, 2.NBT.4  MP2,5,6,7, | * **Lesson 1-11 Relations(>,<,=) and Home Links** p. 65-70 | * When would you use the symbol =? What does it mean? Explain your thinking. |
| 2.NBT.1a, 2.NBT.3  MP 1-6 | * **Lesson 1-12 Exploring Temperatures, Base-10 Structures, and Dominoes** p. 71-75 | * What information does a thermometer provide? |
|  | * **Progress Check 1 - Lesson 1-13** p. 76-79 |  |

Support Resources

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| 2.OA.2  **GK**- “Addition Top-it”, “Broken Calculator”  **GK**- “Two-Fisted Penny Addition”  **AIMS (Solve-it)**- “Puzzling Patterns” p. 38  **AIMS (Solve-it)**- “Equation Creation” | 2.NBT.2  Games: “Rolling for 50” |
| 2.NBT.3  **AIMS (Solve-it)**- “Puzzling Patterns” p. 38 | 2.NBT.4  **GK**- “Number Line Squeeze”  **GK**- “Number Top-it”; “Secret Number”; “Shaker Addition Top-it” |
| **Tier 2:** Besides setting your procedures and expectations, we suggest that you give the Addition Fact Strategies test to determine the needs of your students. In first grade, student should have been taught the following strategies: “Counting On”, “Zero”, “Doubles”, and “Combinations of Ten”. If you have students that struggle with these facts, you may wish to address them in your intervention time. Activities from your “Addition and Subtraction Fact Strategies” booklet will offer you several activities to choose from for teaching and practicing each specific addition strategy. Lessons will begin in Unit 2 (about week 5) and “half-lessons” are also being provided. | |

Notes:

Unit 2: **Addition and Subtraction Facts** Time Frame: Sept. 10- Oct. 10 (22 days)

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| Essential Understandings:   * Represent and solve problems involving addition and subtraction. * Add and subtract within 20. * Work with equal groups of objects to gain foundations for multiplication. * Use place value understanding and properties of operations to add and subtract. | | |
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| **CCSS focus this unit:**   * 2.OA.1-- Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*,* e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. * 2.OA.2-- Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.OA.3 - Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. * 2.NBT.9-- Explain why addition and subtraction strategies work, using place value and the properties of operations.   Also addressed:   * 2.MD.6-- Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. * 2.NBT.8 - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?* |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * How can I reinforce the understanding of the inverse relationship between addition and subtraction? |
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Lessons not aligned to CCSS: Additional lessons have been added to this unit from the Fact Strategies booklet to support 2nd grade’s critical area #2. If you have followed the recommendation of using this resource during intervention and have already taught this lesson to your students, use this day to review and reinforce the skills focused on this unit.

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.OA.1 | * **Lesson 2-1 Addition Number Stories** p.94-98 | * Where can you find patterns in mathematics? |
| 2.OA.1  2.OA.2  2.NBT.9 | * **Lesson 2-2 Review “Easy” Addition Facts** p. 99-104 | * How can these and other shortcuts help you in mathematics? * How would you explain the +1 (+0) strategy? |
| 2.OA.2  2.OA.3  2.NBT.9 | * **Lesson 2-3 Doubles Facts** p. 105-110 | * What patterns do you notice on the facts table? * Why is it important to know how to find patterns in math? |
| 2.OA.2  2.OA.3  2.NBT.9 | * **Additional Lesson: Combinations of Ten** | * How does knowing combinations for 10 make it easy to add several numbers? |
| 2.OA.2 | * **Lesson 2-4 Turn-Around Facts and the +9 Shortcut** p. 111-115 | * How would you describe the +9 patterns on the facts table? |
| 2.OA.2  2.NBT.9 | * **Lesson 2-5 Addition Strategies that Use Doubles Facts** p. 116-120 | * How can these and other strategies help you in mathematics? * How does knowing doubles facts help you to learn other facts? |
| 2.OA.2  2.NBT.9 | * **Additional Lesson: Make a Ten (2 days)** | * How does a ten frame help with adding sums greater than ten? |
| 2.OA.1  2.OA.2  2.NBT.9  2MD.6 | * **Lesson 2.6 Subtraction from Addition** p. 121-125 | * How does using dominoes and other math tools help you in math? |
| 2.OA.2  2.NBT.9 | * **Additional Lesson: Think Addition** | * How does knowing addition facts help with learning subtraction facts? |
| 2.OA.2  2.NBT.9 | * **Lesson 2-7 Fact Families**   p. 126-131 | * Why is it important to make a plan before attempting to solve a problem? |
| 2.OA.2  2.OA.3 | * **Lesson 2-8 Exploration: Exploring Weights, Scales, Equal Groups** p. 132-137   ***Teacher Note: Omit spring scale portion of this lesson*** | * Why is it important to make a plan before attempting ot solve a problems? |
| 2.OA.2  2.NBT.5 | * **Lesson 2-9 Name Collections** p. 138-142 | * When might it be helpful to solve your problem in more than one way? Explain your thinking. * Why is it important to write names for numbers in more than one way? |
| 2.NBT.2 | * **Lesson 2-10 Frames-and-Arrows Routines**  p. 143-148   *Teacher Note: Replace Math Message with Readiness activity in part 3* | * How do you find the pattern in a Frames-and-Arrows problem? * How do you know what number to write in each empty frame? |
| 2.OA.1  2.NBT.8 | * **Lesson 2-11 “What’s My Rule?” Routines** p. 149-154   *Teacher Note: focus on the operations and patterns, more than on the function table* | * How are rules used in mathematics? |
| 2.OA.2  2.NBT.9 | * **Lesson 2-12 Counting Strategies for Subtraction** p. 155-160 | * Why is it important to be accurate when you calculate? |
| 2.OA.2  2.NBT.9 | * **Additional Lesson: Build Up and Back Down the Ten Frame** | * How does a ten frame help with subtraction? |
| 2.OA.1  2.OA.2  2.NBT.9 | * **Lesson 2-13 Shortcuts for “Harder” Subtraction Facts** p. 161-165 | * How can these and other strategies make learning our math facts easier? |
|  | * **Progress Check 2 - Lesson 2-14** p. 166-169 |  |

Support Resources

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| 2.OA.1  **AIMS**- Solve It  “A-Counting for Apples” p. 71-73 | 2.OA.2  **GK**- “Name That Number”  **GK**- “Beat the Calculator”’ “Domino Top-it”  **GK**- “Turn Around Facts” |
| 2.OA.3 | 2.NBT.9  **AFS**- “Counting On” p. 19 “Zero” p. 28  **AFS**- “Think Addition” p. 60  **AFS**- “Fact Families” p. 6  **AFS**- “Doubles” p. 31  **AFS**- “Doubles +1” p. 35 ; “Doubles +2” p. 56  **VDW** – p 99-111 |

Notes:

Unit 3: **Place Value, Money and Time** Time Frame: October 15 - 31 (13 days)

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| Essential Understanding:   * Represent and solve problems involving addition and subtraction. * Add and subtract within 20. * Work with time and money | | |
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| **CCSS focus this unit:**   * 2.NBT.2-- Count within 1000; skip-count by 5s, 10s, and 100s. * 2.NBT.3-- Read and write numbers to 1000 using base-ten numerals, number names, and expanded form * 2.OA.2-- Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.MD.8— Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?* * 2.MD.7 - Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.   Also addressed:   * 2.OA.1-- Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*.* * 2.MD.6-- Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. * 2.MD.10-- Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph. * 2.G.1— Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. * 2.NBT.4-- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. | ` | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * How can I provide multiple opportunities for students to represent numbers concretely and pictorially, as well as abstractly? * When using money, how can I plan so that my students understand the abstract form of money in a more concrete manner? |
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Lessons not aligned to CCSS:

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.NBT.1b 2.NBT.2, 2.NBT.3, 2.NBT.4  MP1,2,5,6,7 | * **Lesson 3-1 Numeration and Place Value** p. 184-189 (2 days) | * How might base-10 blocks be used to show numbers? * Why is it helpful to be able to show numbers in different ways? |
| 2.NBT.2, 2.MD.8  MP2,3,5,6 | * **Lesson 3-2 Using Coins to Buy Things** p.190-195   *Teacher Note: coin puzzles may need to be available for struggling students* | * Describe a time when you had to count coins in real life. |
| 2.0A.2, 2.MD.7  MP2,4,5,6, | * **Lesson 3-3 Telling Time** p.196-201 | * When might you need to know the exact time, not just the hour? * When do you use a clock during the day? |
| 2.NBT.3, 2.G.1  2.MD.7  MP1,2,5,6,7 | * **Lesson 3-4 Exploration: Exploring Numbers, Time, and Geoboards** p.202-206   *Teacher Note: emphasize base then activities. Also, need to be explicit about geoboard use, not just dot paper* | * Compare the two shapes. How are they alike? How are they different? |
| 2.MD.10  MP2,4,6,7 | * **Lesson 3-5 Data Day: Pockets p**. 207-212 | * Why are graphs helpful for showing data? |
| 2.OA.2  2.MD.6  MP3,6,7,8, | * **Lesson 3-6 Frames and Arrows Having Two Rules** p. 213-218   *Teacher Note: “Readiness” activity recommended* | * When else have you used growing patterns in math? |
| 2.OA.1, , 2.NBT.2, 2.MD.8  MP 1-7 | * **Lesson 3-7 Making Change by Counting Up** p. 219-223   *Teacher Note: coin puzzles may need to be available for struggling students* | * What tools could help you solve the making change problems on the journal page? How? |
| 2.OA.1,  2.MD.8  MP2,4,6, | * **Lesson 3-8 Coin Exchanges** p. 224-229 | * How are problems that ask for exact change different from those that do not need exact change? |
|  | * **Lesson 3-9 Progress Check 3** p. 230-233 |  |

Support Resources

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| 2.NBT.2 & 3: | 2.OA.1 & 2: |
| 2.MD.7 & 8:  **AIMS (Solve-it)**- “Sign-in Sheet and Data Displays” |  |

Unit 4: **Addition and Subtraction**  Time Frame: November 1 - 28 (16 days)

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| Essential Understanding:   * Work with time and money. * Use place value understanding and properties of operations to add and subtract. * Represent and solve problems involving addition and subtraction. | | |
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| **CCSS focus this unit:**   * 2.NBT.5-- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. * 2.NBT.6 - Add up to four two-digit numbers using strategies based on place value and properties of operations. * 2.NBT.9 - Explain why addition and subtraction strategies work, using place value and the properties of operations. * 2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*,* * 2.MD.8 - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.   Also addressed:   * 2.NBT.1-- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones;:   a. 100 can be thought of as a bundle of ten tens — called a “hundred.”  b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).   * 2.NBT.7 - Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. * 2.OA.2 - Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.MD.1 - Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. * 2.MD.2 - Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. * 2.MD.6 - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. * 2.G.1 - Recognize shapes having specified attributes. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
|  |  |
|  | Planning/Reflective Questions for Teachers   * How can I use the structure of the place value system to assist students in their efficiency and accuracy in multi-digit computation? |
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Lessons not aligned to CCSS: 4-4

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.OA.1  MP1,2,4,5,6 | * **Lesson 4-1 Change-to-More Number Stories** p. 248-253 | * How do you decide where the information from the problem goes in a change diagram? |
| 2.OA.1 2.MD.6, 2.MD.8  MP1,2,3,4,6 | * **Lesson 4-2 Parts-and–Total Number Stories** p. 254-259 | * Why wouldn’t it make sense to have a total that is smaller than one of the parts? |
| 2.MD.8, 2.G.1  MP2,3,5,6 | * **Lesson 4-3 Exploration: Exploring Temperature, Money, and Shapes** p. 260-265   *Teacher Note: Explorations B & C recommended* | * What helped you sort your blocks? |
| Optional | * **Lesson 4-4 Temperature Changes** p. 266-271 | * How is the change diagram like a number model? |
| 2.OA.2,  2.MD.8  MP3,4,5,6,7 | * **Lesson 4-5 Estimating Costs** p. 272-276 | * What is the difference between an estimate and an exact answer? |
| 2.OA.1,  2.NBT.5,  2.NBT.6,  2.NBT.9,  2.MD.6,  2.MD.8  MP 1-7 | * **Lesson 4-6 A Shopping Activity** p. 277-281 | * How could you use the parts-and-total diagram to check your work? * Could some strategies for solving a problem be better than others? How? |
| 2.MD.1,  2.MD.2,  2.G.2  MP1, 4,5,6,8, | * **Lesson 4-7 Exploration: Exploring Length, Area, and Attributes** p. 282-287 | * How did you decide whether something can be tiled? * Which tool would be better for measuring around the wastebasket? Explain. |
| 2.NBT.5, 2.NBT.6, 2.NBT.7  2.NBT.9  MP1,3,5,6,7,8 | * **Lesson 4-8 Paper-and-Pencil Addition Strategies** p.288-293 (2 days) | * For Problems 7–10 on *Math Journal,* page 105, how might you use the first sum to help you find the other two sums? |
| 2.NBT.1a, 2.NBT.5, 2.NBT.6, 2.NBT.7,  2.NBT.9  MP1,2,5,6,7,8 | * **Lesson 4-9 The Partial-Sums Addition Algorithm** p. 294-299 (3 days)   *Teacher Note: “Readiness” activity recommended under “differentiated options”* | * How did you use the partial-sums algorithm to solve one of the addition problems? Use base-10 blocks or other tools to help you explain your strategy. |
|  | * **Lesson 4-10 Progress Check 4** p. 300-303   *Teacher Note: skip #2*  *Do not use “Open Response” . It is being used in a future lesson.* |  |

Support Resources

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| 2.NBT.5 & 6 & 9:  **GK**-“Missing Terms” | 2.OA.1  **AIMS-**Solve-It! “Frog Tales” p. 86-90 |
| 2.MD.8  **AIMS-**Solve-It! “Change Confusion” p. 147-157 |  |

Unit 5: 3D and 2D Shapes Time Frame: Nov 29 – Dec 7 (7 days)

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| Essential Understanding:   * Reason with shapes and their attributes | | |
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| **CCSS focus this unit:**   * 2.G.1-- Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.   Also addressed:   * 2.MD.7-- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. * 2.OA.2-- Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
|  |  |
|  | Planning/Reflective Questions for Teachers   * How can I use help students use defining attributes to name and draw shapes? |
|  |  |  |
| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **AH—**Assessment Handbook (Everyday Mathematics)  **EM — DO** Everyday Math Part 3: Differentiation Options  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  attribute, cone, congruent, cube, cylinder, edge, face prism, pyramid, sphere, vertex, parallelogram, quadrilateral, rectangle, rhombus, square, trapezoid, octagon, heptagon, pentagon, triangle, angle |

Lessons not aligned to CCSS: 5-2, 5-3, 5-7, 5-8

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.G.1,  2.MD.7  MP2, 6, 7, 8, | * **Lesson 5-1 Exploration: Exploring Rules, Sharing and Time** p. 316-321 | * Why do you need to learn how to read time on different kinds of clocks (digital and analog)? |
| 2.G.1  2.G.2  MP2,4,5,6,7,8 | * **Lesson 5-4 Exploration :Exploring Polygons, Arrays, and Attributes** p. 332-337   *Teacher Note: need to add pentagon to list of polygons taught.* | * How is drawing polygons different from making them on a geoboard? |
| 2.G.1  MP1,2,5,6,7 | * **Lesson 5-5 ~~Quadrangles (~~use Quadrilateral)** p. 338-342 (2 days) | * Is a square a rectangle? Is a rectangle a square? Why or why not? |
| 2.G.1  MP2,3,4,5,6,7 | * **Lesson 5-6 3-Dimensional Shapes** p. 343-348   *Teacher Note: cubes are the only 3D shape 2nd grade students need to know* | * Why might someone need to know the geometric name of a 3-D shape in the real world? |
|  | * **Lesson 5-9 Progress Check 5 p.**360-363   *Teacher Note: skip #4* |  |

Support Resources

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| 2.G.1  **GK**-“Geometry 5 Questions” , “Attribute Train”  **GK**-“Touch-and-Match Quadrangles”  **GK**-“Name That Polygon”  **AIMS-**Solve-It! “Suitcase Solutions” p. 2-10 |  |

Unit 6: Whole-Number Operations and Number Stories Time Frame: Dec 10 – Jan 16 (19 days)

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| Essential Understanding:   * Work with equal groups of objects to gain foundations for multiplication. * Use place value understanding and properties of operations to add and subtract. | | |
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| **CCSS focus this unit:**   * 2.OA.4-- Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. * 2.NBT.5 - Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. * 2.NBT.6 - Add up to four two-digit numbers using strategies based on place value and properties of operations. * 2.NBT.7 - Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. * 2.NBT.9 - Explain why addition and subtraction strategies work, using place value and the properties of operations.   Also addressed:   * 2.NBT.2 - Count within 1000; skip-count by 5s, 10s, and 100s. * 2.OA.2 - Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*,* * 2.MD.5 - Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. * 2.MD.6 - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * How can I help students use math tools to demonstrate and support their understanding of computation strategies? * How can I help students understand the structure of a problem and its relationship to the computational relationship? |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  difference, data display, bar graph, subtraction, array, addend, equal, multiplication |

Lessons not aligned to CCSS: 6-10

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
|  | * Additional Lesson: Start-Change-Result Unknown” |  |
|  | * Additional Lesson: Part-part-whole |  |
| 2.NBT.5, 2.NBT.6, 2.NBT.7, 2.NBT.9  MP1,3,4,6,8 | * **Lesson 6-1 Addition of Three or More Numbers** p. 378-383 | * Why is it important to understand what numbers mean in math problems? * What addition shortcuts do you know that could help you find the easiest ways to add three numbers? |
| 2.OA.1, 2.MD.5  MP2,3,4,5,6,8 | * **Lesson 6-2 Comparison Number Stories** p. 384-389 | * What does it mean to find the *difference* between the two quantities? |
| 2.MD.10  MP2,4,6, | * **Lesson 6-3 Data Day: The Four Food Groups** p. 390-395 | * What questions could you *not* answer using this data table? * Which questions could you answer using the data table? |
| 2.OA.1, 2.NBT.6  MP1,2,4,6,8, | * **Lesson 6-4 Mixed Addition and Subtraction Stories (2 days)** p. 396-400   *Teacher Note: emphasize use of “Thinking Tools”* | * How did you chose which diagram to use for the problems? * What do we want to find out from the story? |
| 2.NBT.2, 2.NBT.5, 2.NBT.7, 2.NBT.9, 2.MD.6  MP2,3,4,5,6, | * **Lesson 6-5 Subtraction Strategies** p.401-406   *Teacher Note: need to use place value language with students. instead of “longs” and ‘cubes”* | * What are different strategies to solve subtraction problems? * How are the different strategies different? How are they alike? |
| 2.OA.4  MP1,2,5,6, | * **Lesson 6-6 Exploration: Exploring Arrays, Coins, and Division** p.407-411 | * How are the arrays you make on the geoboard like the arrays you drew? |
| 2.OA.2, 2.OA.4  MP 1-6 | * **Lesson 6-7 Multiples of Equal Groups** p.412-417 | * When might you use equal groups in your life? |
| 2.OA.4  MP2,4,5,6, | * **Lesson 6-8 Multiplication-Array Number Stores** p. 418-423 | * How can arrays help you understand multiplication? |
| 2.OA.4  MP2,4,5,6, | * **Lesson 6-9 Multiplication with Arrays** p. 424-428 | * How do multiplication diagrams help you solve multiplication problems? |
| Optional | * **Lesson 6-10 Division Stories** p. 429-433 | * What does it mean for an answer to “make sense?” |
|  | * **Lesson 6-11 Progress Check 6** p. 434-437 |  |

Support Resources

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| 2.OA.4  **GK** – “Array Bingo” | 2.NBT.5  **AIMS** (Solve It!) – “Equation Creation” p. 91-95  **VDW** – “Teaching Addition and Subtraction” p. 70-76  **GK** – “Three Addends” & “Tic-Tac-Toe Addition” |
| 2.NBT.9  **VDW** – “Teaching Addition and Subtraction” p. 70-76 | 2.NBT.7  **AIMS** (Solve It!) – “Fishy Findings” p. 122-126  **VDW** – “Ten-Frame Adding and Subtracting” p.165-166  **AIMS** (Solve It!) – “Picturing a Solution” p. 74-75 |
| 2.NBT.6 |  |

Unit 7: Patterns and Rules Time Frame: Jan 17 – Feb 1 (12 days)

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| Essential Understanding:   * Measure and estimate lengths in standard units. * Relate addition and subtraction to length | | |
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| **CCSS focus this unit:**   * 2.MD.4-- Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit * 2.MD.5-- Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem..   Also addressed:   * 2.NBT.2 - Count within 1000; skip-count by 5s, 10s, and 100s. * 2.NBT.5 - Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. * 2.NBT.6 - Add up to four two-digit numbers using strategies based on place value and properties of operations. * 2.NBT.7 - Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. * 2.MD.6—Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram * 2.MD.1— Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. * 2.MD.2— Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. * 2.MD.8— Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have* * 2.MD.9— Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. * 2.MD.10--Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
|  |  |
|  | Planning/Reflective Questions for Teachers   * How might using the number line in addition to number grid to anchor students’ thinking be helpful to improve student understanding? * How can students be encouraged to use a variety of addition strategies and explain their thinking during times other than whole group instruction? |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  multiple, scale, weight, data, line plot, bar graph |

Lessons not aligned to CCSS: 7-4

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.NBT.2  MP5,6,7 | * **Lesson 7-1 Patterns in Counting** p. 544-548 | * Describe patterns in counting by 2s, 5s and 10s. * Why do we look for patterns in math**?** |
| 2.NBT.5, 2.NBT.7  MP5,6,7 | * **Lesson 7-2 Extending Complements of 10** p. 549-553 | * How does knowing the complements of 10 make it easier to solve problems with bigger numbers? * Could you hit the target number in fewer steps if you tried again? How? |
| 2.NBT.6, 2.MD.6  MP2,4,5,6,8 | * **Lesson 7-3 Mental Arithmetic: A Basketball Game** p. 554-558 | * What mistakes could someone make when adding three or more numbers? * What does it mean to be accurate? |
| Optional | * **Lesson 7-4 Patterns in Doubles and Halves** p. 559-564 | * When might you need to double or divide something in half? |
| 2.MD.8  MP1,2,4,5,6,7, | * **Lesson 7-5 Exploring Weights, Equal Sharing, and Patterns** p. 565-569   *Teacher Note: focus on Exploration B* | * How could it be helpful to show all your work on problems like this? |
| 2.MD.1, 2.MD.2, 2.MD.4, MP2,3,5,6, | * **Lesson 7-6 Data Day: Standing Jumps and Arm Spans** p. 570-575 | * What does it mean to measure to the *nearest* inch or centimeter? * What does it mean to be precise when measuring? |
| 2.MD.4, 2.MD.5  MP2,3,4,5,6,7 | * **Lesson 7-7 Middle Value (Median) of a Set of Data** p. 576-581   *Teacher Note: skip “Finding the Median Length”* | * What could help you remember new math vocabulary? |
| 2.MD.4, 2.MD.5, 2.MD.9, 2.MD.10  MP2,4,6 | * **Lesson 7-8 Frequency Distributions** p.582-587 (2 days)   *Teacher Note: de-emphasize median* | * What other types of data could you represent on a line plot? * What other questions could you answer with line plot? |
|  | * **Lesson 7-9 Progress Check 7** p. 588-591 |  |

Support Resources

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| 2.MD.4 | 2.MD.5 |

Unit 8: Fractions Time Frame: February 4 - 22 (13 days)

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| Essential Understanding:   * Reason with shapes and their attributes. | | |
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| **CCSS focus this unit:**   * 2.G.3-- Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.   Also addressed: |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
|  |  |
|  | Planning/Reflective Questions for Teachers   * What additional models might be used in place of or in addition to the pictorial representation on the math pages? |
|  |  |  |
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Lessons not aligned to CCSS: 8-6, 8-7

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.G.3  MP1,2,3,4,6 | * **Lesson 8-1 Equal Parts of ONE** p.604-609 | * What does the numerator of 3/4 tell you? denominator? * What is a fraction? |
| 2.G.3  MP1,5 | * **Additional Lesson**: **Fraction Strips** *(2 days)* |  |
| 2.G.3  MP2,4,5,6 | * **Lesson 8-2 Exploration: Exploring Fractions, Multiplication and Division, and Volume** p. 610-615   *Teacher Note: skip Exploration C* | * What does the ONE mean when working with fractions? |
| 2.G.3 (extension)  MP1,2,4,5,6 | * **Lesson 8-3 Collections of Things** p. 616-620   *Teacher Note: use object/manipulatives with pictures provided within the lesson.* | * What do you know from the problem? * Is 1/2 of a collection of objects always the same? Why or why not? |
| 2.G.3  MP1,2,5,6 | * **Lesson 8-4 Equivalent Fractions** p. 621-625 | * Do all numbers have many names? Give examples |
| 2.G.3  MP2,3,4,5,6 | * **Lesson 8-5 Equivalent Fractions Using Fraction Cards** p. 626-630 (2 days)   *Teacher Note: include “open Response” A.H. p. 191* | * How can pictures help you understand fractions? * What do you notice about the all the fractions equivalent to 1/2? (1/2, 2/4, 3/6, 4/8) |
| Optional , | * **Lesson 8-6 Comparing Fractions** p. 631-635 | * Are there any fractions you knew were less than, equal to, or greater than 1/2 without looking at the picture? How did you know? |
| Optional | * **Lesson 8-7 Fraction Number Stories** p. 636-639 | * What are other real life fraction number stories that we might solve? * When might you use fractions in your life? |
|  | * **Lesson 8-8 Progress Check 8** p. 640-643   *Teacher Note: skip #4, 5, 6, 7, 8, 9* |  |

Support Resources

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| 2.G.3  Games:  VDW:  EM-DO  TRM  AIMS PS |  |

**VDW** – “Finding Fair Shares” p. 257

**EM** Museum- Fractions Museum p. 603

**AIMS** (Solve It!) – “Fishy Fractions” p. 50-54

**GK** – “Equivalent Fractions”

**VDW** – Equivalent-Fraction Concepts” p. 269-272

**GK** – “Fraction Top-it”

Unit 9: Measurement Time Frame: Feb 25 – March 13 (13 days)

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| Essential Understanding:   * Measure and estimate lengths in standard units. | | |
|  | | |
| **CCSS focus this unit:**   * 2.MD.1-- Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. * 2.MD.2 - Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.. * 2.MD.3 - Estimate lengths using units of inches, feet, centimeters, and meters.   2.MD.4 - Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit  Also addressed:   * 2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. * 2.NBT.7 - Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
|  |  |
|  | Planning/Reflective Questions for Teachers   * What anchor charts are needed to plan for when helping kids develop personal benchmarks for standard units? |
|  |  |  |
| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  perimeter, area, capacity, weight, difference |

Lessons not aligned to CCSS: 9-6, 9-8, 9-9

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.MD.1, 2.MD.3, 2.MD.4,  MP2,4,5,6 | * **Lesson 9-1 Measuring with Yards and Meters** p. 660-665 | * What are examples of standard units? * How can you get better at estimating length? |
| 2.MD.1, 2.MD.2, 2.MD.3, 2.MD.4  MP1 2,5,6 | * **Lesson 9-2 Linear Measures** p. 666-671 | * Why are units important when you report measurements? |
| 2.MD.1, 2.MD.2, 2.MD.3, 2.MD.4  MP2, 4,5,6 | * **Lesson 9-3 Fraction Units of Length p.** 672-677   *Teacher Note: focus on whole unit measurements (fractional emphasis is 3rd grade)* | * How could you still measure accurately with a broken ruler that starts at the 1-inch mark? * Which situations call for very accurate measurements? |
| 2.MD.1  MP1,4,5,6, | * **Lesson 9-4 Perimeter** p. 678-682   *Teacher Note: though perimeter is not 2nd grade content, emphasize the linear measurement expectation* | * Why did you choose the measuring tool(s) that you used? * Are some tools better for measuring certain things than others? Explain. |
| 2.NBT.7  MP2,5,6,7 | * **Lesson 9-5 Measuring Longer Distances** p. 683-687   *Teacher Note: emphasize 3-digit word problems* | * Why do we talk about how math is important in your life? |
| Optional | * **Lesson 9-6 Exploration: Exploring Capacity, Area, and Measures** p. 688-693   *Teacher Note: Skip Exploration A* | * Why do we make predictions before solving a problem * What could you measure with a ruler, a tape measure, a meterstick, or a yardstick? |
| 2.G.2  MP1,2,3,5,6 | * **Lesson 9-7 Area** p. 694-698   *Teacher Note: though perimeter is not 2nd grade content, emphasize the linear measurement expectation* | * Give an example of two rectangles with an area of 12 square cm but different perimeters. Explain why there are different perimeters. |
| 3.MD.2, Optional | * **Lesson 9-8 Capacity** p. 699-704 | * If someone spills a pint of milk at lunch, how many cups were spilled? * When might you need to know equivalent measures of capacity? |
| 3.MD.2, Optional | * **Lesson 9-9 Weight** p. 705-709 | * Could you estimate the weight of something by only looking at it? Why or why not? |
|  | * **Lesson 9-10 Progress Check 9** p. 710-713   *Teacher Note: Skip #5, 7, 8* |  |

Support Resources

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| 2.MD.1  **EM**-Museum “Measurement All Around Us” p. 656  **VDW**-“Measuring Length” p. 228-233  **AIMS** (Solve It!) – “Sweet Squares” p. 58-63 | 2.MD.2  **EM**-Museum “Measurement All Around Us” p. 656  **VDW**-“Measuring Length” p. 228-233 |
| 2.MD.3  **EM**-Museum “Measurement All Around Us” p. 656  **VDW**-“Measuring Length” p. 228-233 | 2.MD.4  **EM**-Museum “Measurement All Around Us” p. 656  **VDW**-“Measuring Length” p. 228-233  **AIMS** (Solve It!) – “Sweet Squares” p. 58-63 |

Unit 10: Decimals and Place Value Time Frame: March 25 – April 12 (15 days)

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| Essential Understanding:   * Understand place value. * Represent and solve problems involving addition and subtraction. * Work with time and money. | | |
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| **CCSS focus this unit:**   * 2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*,* * 2.MD.8 - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*. * 2.NBT.1a,b - Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).   Also addressed:   * 2.NBT.2 - Count within 1000; skip-count by 5s, 10s, and 100s. * 2.NBT.3 - Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. * 2.G.3 - Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * How can I use the structure of the place value system to assist students in their efficiency and accuracy in multi-digit computation? * What patterns in the place value system do students need to understand to represent and solve problems? |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  decimal, estimate, line plot, area, polygon, place value, addition, subtraction |

Lessons not aligned to CCSS: 10-2, 10-10, 10-11

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.MD.8  MP1,2,4,6,7 | * **Lesson 10-1 Money** p. 726-730 | * What helps you remember the values of coins in daily life? * How have you used coins recently? |
| Optional  MP1,2,3,6 | * **Lesson 10-2 Decimal Notation for Pennies and Dimes** p.731-736   *Teacher Note: do Readiness activity* | * Why do we sometimes estimate the cost of things in daily life? * What are different names for $1.00? |
| 2.MD.8  MP2,5,6, | * **Lesson 10-3 Money Amounts with a Calculator** (2 days) p.731-736   *Teacher Note: if 10-2 was not taught, time instructing students about how to represent decimal numbers will need to take place* | * What mistakes might someone make when using a calculator to work with money? * If you roll a large number first, where might you put it? Why |
| 2.OA.1, 2.MD.8  MP1,3,4,5, 6,7 | * **Lesson 10-4 Multiples of Equal Groups** p.743-747 | * What did you do if you weren’t sure how to solve one of these problems? |
| 7, 2.MD.8  MP1,2,3,5,6, | * **Lesson 10-5 Estimating and Finding Exact Costs** p. 748-752 | * How can estimates help you check exact answers? |
| 2.OA.1, 2.MD.8  MP1,3,4,5,6,7, | * **Lesson 10-6 Making Change** p. 753-757 (2 days) | * Ask children to find the exact amount of change. Have children share their strategies. |
| 2.G.3  MP1, 5, 6 | * **Lesson 10-7 Exploring Area, Polygons, and Geoboard Fractions** p. 758-763   *Teacher Note: do Exploration C. A & B are optional* | * What do you notice about all the shapes that can be divided equally? |
| 2.NBT.1a,b 2.NBT.2, 2.NBT.3  MP1,2,5,6,7 | * **Lesson 10-8 Place Value** p. 764-768 | * How can base-10 blocks and money represent the same numbers? * Why do you think we use base-10 blocks in math class**?** |
| 2.NBT.1a, b  MP1,5,6,7,8, | * **Lesson 10-9 Place-Value Tools** p. 769-774 | * Why do we describe the relationship between digits as the ten-for-one relationship? How did you show this with your Place-Value book? |
| Optional | * **Lesson 10-10 Place-Value Notation for Ten-Thousands** p. 775-779 | * Would our number system work without 0? Why or why not?? |
|  | * **Lesson 10-12 Progress Check 10** p. 784-787   *Teacher Note: skip 1,3,4,5 & include “Open Response”* |  |

Support Resources

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| 2.OA.1  Games:  VDW:  EM-DO  TRM  AIMS PS | 2.NBT.1a,b  **GK-** “One-Dollar Game” & “Ones, Tens, Hundreds” & “Tens-and-Ones Trading”; “Digit Discovery” |
| 2.MD.8  **GK-** “Pick-a-Coin” |  |

Unit 11: Whole-Number Operations Revisited Time Frame: April 15 – May 3 (13 days)

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| Essential Understanding:   * Use place value understanding and properties of operations to add and subtract. * Understand place value. * Work with equal groups of objects to gain foundations for multiplication**.** | | |
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| **CCSS focus this unit:**   * 2.OA.4-- Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends. * 2.NBT.5 - Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. * 2.NBT.1a - Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” * 2.NBT.7 - Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds. * 2.NBT.9 - Explain why addition and subtraction strategies work, using place value and the properties of operations.   Also addressed:   * 2.NBT.6 - Add up to four two-digit numbers using strategies based on place value and properties of operations * 2.OA.2 - Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. * 2.OA.1 - Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions*,* * 2.MD.8 - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*. * 2.MD.6 - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram. |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * How can I use the structure of the place value system to assist students in their efficiency and accuracy in multi-digit computation? * What strategies for computation emphasize place value knowledge and skill? |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  division, quotient, remainder, factor, product, algorithm, subtraction, commutative property of multiplication, square number, fact family |

Lessons not aligned to CCSS: 11-5, 11-7, 11-9

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.NBT.5, 2.NBT.7, 2.NBT.9, 2.MD.6, 2.MD.8  MP4,5,6,7 | * **Lesson 11-1 Addition Number Stories with Dollars and Cents** p. 802-806 | * What can you learn from sharing different problem-solving strategies? * Is it necessary to find the exact total costs? Why or why not |
| 2.NBT.5, 2.NBT.7, 2.NBT.9, 2.MD.8  MP1, 2,4,5,6 | * **Lesson 11-2 Subtraction Number Stories with Dollars and Cents** p. 807-811 | * How did you decide which item costs more? * Which digit(s) helped you figure out which item cost more? |
| 2.NBT.1a, 2.NBT.5, 2.NBT.7, 2.NBT.9, MP1-7 | * **Lesson 11-3 The Trade-First Subtraction Algorithm** p. 812-817   *Teacher Note: needs to be taught with conceptual place value understanding* | * How can you check whether your answers make sense? |
| 2.OA.1  2.OA.2  2.NBT.1A  2.NBT.5  2.NBT.6  2.NBT.7  2.NBT.9 | * **Algorithm Project 2 p. A6 – A10** | * How does place value affect the understanding of the standard algorithm? |
| 2.OA.4  MP2,4,5,6, | * **Lesson 11-4 Multiples of Equal Groups** p. 818-823 | * What are other ways to model multiplication problems? |
| Optional | * **Lesson 11-5 Division Number Models** p. 824-829 | * What does it mean to divide? |
| 2.OA.4  MP1,2,5,6, | * **Lesson 11-6 Multiplication Facts** p.830-834 | * What patterns do you see in your list of multiplication problems? |
| Optional | * **Lesson 11-7 Products Table** p.835-839 | * What pattern helps you answer the times-1 problems? * What pattern helps you answer the times-0 problems? |
| 2.OA.4  MP2,4,5,6, | * **Lesson 11-8 Multiplication/Division Facts Families** p. 840-845 | * How might arrays and multiplication diagrams help you solve multiplication and division problems? |
| Optional | * **Lesson 11-9 Multiplication/Division Facts Practice** p. 846-849 | * When is a calculator less efficient than solving a problem in your head? |
|  | * **Lesson 11-10 Progress Check 11** p. 850-853   *Teacher Note: skip 3, 7-10* |  |

Support Resources

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| 2.OA.4  **VDW-** p. 112-118  **GK-** “Array Bingo” ; “Triangle Fact Flip” | 2.NBT.1a |
| 2.NBT.5  **GK-** “Beat the Calculator” | 2.NBT.7  **AIMS-Solve-it!** “Fishy Findings” p. 122-126 |
| 2.NBT.9 |  |

Unit 12: Year-End Reviews and Extensions Time Frame: May 6 – 22 (13 days)

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| Essential Understanding:   * Relate addition and subtraction to length. * Work with time and money * Represent and interpret data**.** | | |
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| **CCSS focus this unit:**   * 2.MD.7-- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m * 2.MD.10 - Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph. * 2.MD.6 - Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.   Also addressed |  | **Math Practices**   1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. |
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|  | Planning/Reflective Questions for Teachers   * What vocabulary is important to expect students to use when demonstrating their understanding of time? * What important components of a graph are important for students to understand? |
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| **Key:**  **EM –** Everyday Mathematics Teacher’s Lesson Guide  **TRM—**Teacher’s Reference Manual  **GK**—Everyday Math Games Kit (see “Teacher’s Guide to Games” book)  **VDW** – Teaching Student-Centered Mathematics by Dr. Van de Walle  **AIMS**-(name of book)—specific book will be identified with lesson name and page number(s)  **\*AFS –** Addition/Subtraction Fact Strategies  **\*MFS** – Multiplication Fact Strategies |  | **Critical Vocabulary:**  time, commutative property of multiplication, factor, product, array, range, frequency table, bar graph, line plot |

Lessons not aligned to CCSS: 12-4, 12-5

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| **CCSS** | **Lesson** | **Questions to encourage MP** |
| 2.MD.7  MP1,4,5,6,7, | * **Lesson 12-1 Review: The Calendar** p. 866-871 | * Could you tell time with clocks that have marks for the hours but no numbers? How? |
| 2.MD.7  MP1,2,4,5,6, | * **Lesson 12-2 Review: Clock Skills** p. 872-877 | * Why is “half-past 8” a good name for 8:30?\* * Why is “quarter-past 3” the same as 3:15?\* |
| 2.MD.6  MP2,4,6,7, | * ***Lesson 12-3 Timelines*** *p. 878-883*   *Teacher Note: do Readiness activity* | * How does a timeline help you organize information? * What are other ways to represent data**?** |
| Optional | * **Lesson 12-4 Practice Multiplication Facts**   p. 884-889 | * Why are some math rules called *shortcuts*? |
| Optional | * **Lesson 12-5 Division from Multiplication** p. 890-895 | * In addition to your fact triangles, what tools could you use to help you solve these multiplication problems? * How do you decide which tools to use? |
| 2.MD.10  MP2,4,5,6,7 | * **Lesson 12-6 Graphs: Comparing Speeds of Animals and People** p. 896-901   *Teacher Note: skip median expectations, instead ask questions from 2.MD.10.* | * What other types of data could you represent in a bar graph? |
| 2.MD.10  MP2,4,5,6,7 | * **Lesson 12-7 The Mode of a Set of Data** p. 902-907   *Teacher Note: skip mode expectations, instead ask questions from 2.MD.10* | * When would a tally chart be a better way to represent data? |
|  | * **Lesson 12-8 Progress Check 12** p. 908-911   *Teacher Note: skip 3,4,12,13* |  |

Support Resources

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| 2.MD.7  **AIMS-Solve-it!-** “Turning Back Time” p. 140-146 | 2.MD.6 |
| 2.MD.10  **EM** Project 6 “Time Capsule” p. 933-936  **AIMS-Solve-it!-** “Sign-in Sheets and Data Displays” p. 132-135 |  |